

Translation

PATENT COOPERATION TREATY

PCT/JP2003/015768



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 664191	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/015768	International filing date (day/month/year) 10 December 2003 (10.12.2003)	Priority date (day/month/year) 10 December 2002 (10.12.2002)
International Patent Classification (IPC) or national classification and IPC G06F 3/033, H01H 13/70		
Applicant NISSHA PRINTING CO., LTD.		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☒ (sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:
    - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
- This report contains indications relating to the following items:
  - ☒ Box No. I Basis of the report
  - ☐ Box No. II Priority
  - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - ☐ Box No. IV Lack of unity of invention
  - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - ☐ Box No. VI Certain documents cited
  - ☐ Box No. VII Certain defects in the international application
  - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 09 June 2004 (09.06.2004)	Date of completion of this report 10 March 2005 (10.03.2005)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/015768

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:

- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ The international application as originally filed/furnished

☒ the description:

pages \_\_\_\_\_ 1-28 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

pages \_\_\_\_\_ 3, 5-9 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19

pages\* 1, 2, 4, 10 received by this Authority on 03 December 2004 (03.12.2004)

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings:

pages \_\_\_\_\_ 1-21 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 03/15768

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

## 2. Citations and explanations

Document 1: JP 1-281622 A (Daicel Chemical Ind., Ltd.),  
13 November 1989, page 4, upper left column,  
lines 9-15 and fig. 2 and 6, (Family: none)

Document 2: JP 2001-216090 A (Nissha Printing Co.,  
Ltd.), 10 August 2001, column 8, lines 10-45  
and fig. 2, (Family: none)

Claims 1 to 6 and 10

The invention that is set forth in claims 1 to 6 and 10 does not involve an inventive step in the light of documents 1 and 2 cited in the international search report.

Document 1 discloses a transparent touch-type input device wherein electrodes comprising a highly conductive material such as silver or copper are provided in parallel to two ends of the resistance sheet that is disposed upon the upper part, and electrodes comprising a highly conductive material are provided to the two sides of the resistance sheet that is disposed upon the bottom part which are perpendicular to the electrodes that are provided to the upper part. In addition, the electrodes in the invention that is disclosed in document 1 are considered to be formed from thin wires which extend to the outside of the resistance sheet in the light of the

illustrations of fig. 2 and 6.

Meanwhile, document 2 discloses a narrow-frame touch panel wherein the resistances of the lead electrodes and/or of the routing circuits have been reduced. In addition, the fact that it becomes difficult to make inputs in cases when the gap between the resistive sheets in a resistance-type touch panel is too large is well known; therefore, with consideration of the resistances of the electrodes and the gap between the resistive sheets, it would be easy for a person skilled in the art to conceive of configuring so that the electrodes comprising a highly conductive material have a diameter between 30-100 $\mu$ m in the invention that is disclosed in document 1.

In addition, the features of using metal wires that have a circular cross section as the wiring members and of mounting the wiring members in question by means of a conductive paste is well known in the art (if necessary, refer to the document JP 9-36395 A (Canon Inc.), 07 February 1997, entire text, fig. 1, (Family: none)); therefore, it would be easy for a person skilled in the art to conceive of using metal wires that have a circular cross section in order to configure the electrodes comprising a highly conductive material, and of mounting the electrodes in question to the resistive sheets by means of a conductive paste in the invention that is disclosed in document 1.

Furthermore, document 2 discloses the feature of introducing a wiring pattern within the range of the narrow frame, which extends 2.5mm towards the inside from the edges of the panel.

#### Claim 7

The invention that is set forth in claim 7 does not involve an inventive step in the light of documents 1 and 2 cited in the international search report.

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In cases when the electrodes comprising a highly conductive material are mounted to the resistive sheets by means of a conductive paste in the invention that is disclosed in document 1, configuring so that the width of the area where the conductive paste is disposed is three to five times the length of the diameter of the electrodes is merely a design matter that can be configured by a person skilled in the art.

## Claim 8

The invention that is set forth in claim 8 does not involve an inventive step in the light of documents 1 and 2 cited in the international search report.

Document 1 discloses the feature of employing electrodes comprising a highly conductive material such as silver or copper; therefore, the specific resistance of the electrodes is also  $20 \times 10^{-6} \Omega \text{ cm}$  or less in the invention that is disclosed in document 1.

## Claim 9

The invention that is set forth in claim 9 does not involve an inventive step in the light of documents 1 and 2 cited in the international search report.

In cases when the electrodes comprising a highly conductive material are mounted to the resistive sheets by means of a conductive paste in the invention that is disclosed in document 1, configuring so that the specific resistance of the conductive paste is  $1 \times 10^{-4} \Omega \text{ cm}$  or less is merely a design matter that can be configured by a person skilled in the art.

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